



Overview of New Monitoring Requirements for NAAQS

Bob Judge

March, 2011

NAAQS Review Status

Pollutant	Current NAAQS Level	Latest NAAQS Review Activity	Expected Next Step
Ozone	0.075 ppm 8-hour	Reconsideration of level and secondary NAAQS proposed on January 6, 2010	Final standards expected to be published August 2011
CO	9 ppm 8-hour 35 ppm 1-hour	NPR signed on January 28, 2011. NAAQS not proposed to be changed, but new near road monitoring requirements.	Court ordered deadline of August 12, 2011 for final rule
SO ₂	75 ppb 1-hour (Annual and daily standards revoked)	FRN signed on June 2, 2010 with 1-hour NAAQS. Hybrid monitoring/modeling approach.	Complete
NO ₂	53 ppb annual mean New- 100 ppb 1-hour	FRN on January 22, 2010 with 1-hour NAAQS. Includes provisions for near roadway monitoring.	Complete
PM _{2.5}	15ug/m ³ annual average 35 ug/m ³ daily	Policy Assessment for the Review of the PM NAAQS - Second External Review Draft dated June 2010	Proposal expected August 2011
PM ₁₀	150 ug/m ³ daily		
Pb	0.15 ug/m ³ rolling 3-month average	Final monitoring rule signed on December 14, 2010. Monitoring requirements for all 0.5 TPY Pb sources, select airports, and urban NCore sites.	Complete



Outline of Today's Presentation

- Review of monitoring issues
 - CO NAAQS NPR
 - SO₂ NAAQS FRN
 - FRN for Monitoring for Pb NAAQS – based on reconsideration request
 - Ozone NAAQS NPR
 - NO₂ Final Rulemaking Notice- (two-tier network, with near-road)
 - NCore update



CO NAAQS NPR

- On January 28, 2011, EPA proposed to retain the existing (NAAQS) for carbon monoxide (CO). After careful review of the available health science, EPA concluded that the current standards provide the required level of public health protection. (published Feb. 11, 2011. 76 FR 8158)
- The existing primary standards are 9 parts per million (ppm) measured over 8 hours, and 35 ppm measured over 1 hour.



CO NAAQS NPR

- EPA is proposing changes to the ambient air monitoring requirements for CO. The proposed requirements are expected to result in approximately 77 CO monitors operating near highly trafficked roads within 53 urban areas as part of the overall CO monitoring network.
- EPA is proposing to require co-location of these CO monitors with a subset of nitrogen dioxide (NO₂), monitors that are required, as part of the January, 2010 revision to the NAAQS for NO₂. Specifically, EPA is proposing to require the co-location with “near-road” NO₂ monitors in urban areas having populations of 1 million or more. (The probes for near road monitors should be within 50 meters of the outside nearest edge of the traffic lane of the target road, and between 2 and 7 meters above the ground)
- EPA is proposing that the required CO monitors would be operating by January 1, 2013

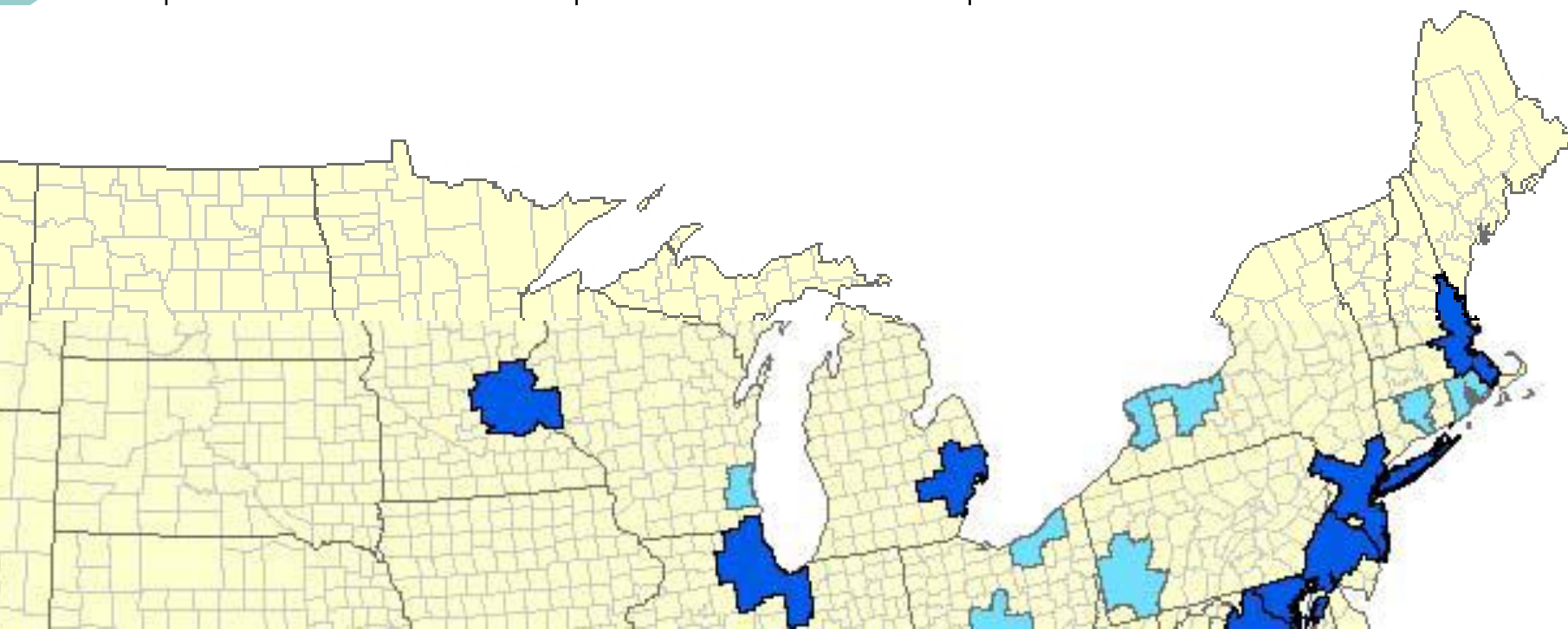
Got it?

- What does this mean for me..?



Proposed Near Road CO Monitoring requirements in New England

<i>CBSA greater than 1,000,000</i>	<i>Near Road Monitor(s) Required?</i>
<i>Hartford, CT</i>	<i>Yes</i>
<i>Boston, MA/NH</i>	<i>Yes (2)</i>
<i>Providence, RI/MA</i>	<i>Yes</i>






CO NAAQS NPR

- Final rule this summer
- Monitors begin on January 1, 2013
(Same date as NO₂ monitors)

Ready for the next pollutant..?

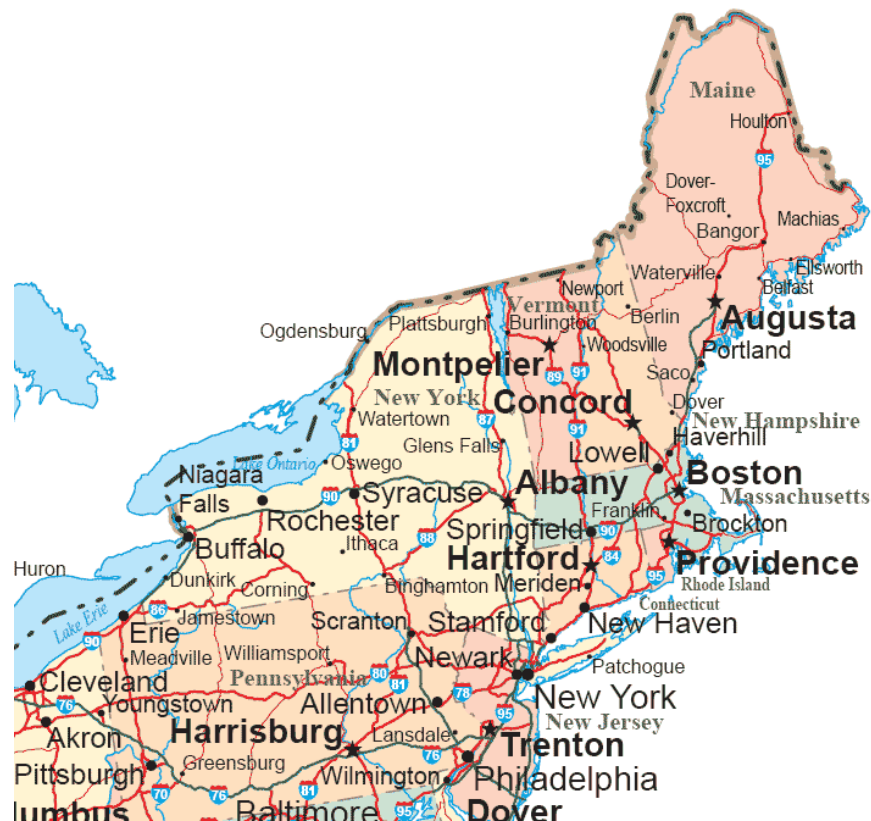
- CO 
- SO₂
- Lead (Pb)
- Ozone
- NO₂
- NCore

SO₂ Monitoring in Region 1 under FRN for Revised SO₂ NAAQS

Published June 22, 2010- 75 FR 35520



Signed on June 2, 2010



Final SO₂ Primary Standard

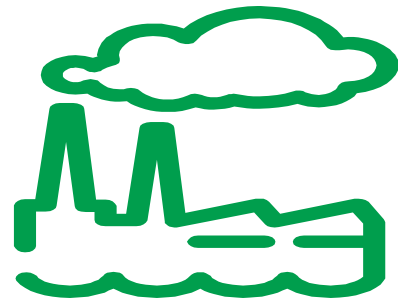
-EPA is establishing a new 1-hour standard SO₂ standard at a level of 75 parts per billion (ppb).

-The 1-hour standard of 75 ppb is below levels measured in many US locations where epidemiologic studies have associated exposure to SO₂ with increased emergency department visits and/or hospitalizations.

-The new 1-hour standard provides substantial protection from high, 5 – 10 minute concentrations of concern.

-Clinical studies reported that five minute SO₂ exposures \geq 200 ppb can result in respiratory problems such as narrowing of the airways which can cause difficulty breathing and increased asthma symptoms.

-This final standard is consistent with the recommendations of the Clean Air Scientific Advisory Committee (CASAC)



Hybrid Monitoring/Modeling Approach to Assess Compliance with the New Standard

Basis for revising monitoring-focused proposal to hybrid approach that includes modeling:

-Address comments that increasing monitoring was insufficient and too burdensome.

EPA plans to use a combination of monitoring and modeling to assess compliance with the 1-hour standard

-More technically appropriate and efficient to model medium to larger sources and to rely on monitoring for groups of smaller sources and sources not as conducive to modeling.

-Consistent with historic approach to SO₂ compliance that used both monitoring and modeling to make determinations.



Hybrid Monitoring/Modeling Approach to Assess Compliance with the New Standard

For sources or groups of sources that have the potential to cause or contribute to a violation of the standard, EPA anticipates using refined source-oriented dispersion modeling to:

- *identify violations, and*
- *determine compliance.*

EPA plans to develop modeling and implementation guidance for the states addressing a variety of issues including how to:

- *Appropriately compare the model results to the new SO₂ standard, and*
- *Identify and appropriately assess the air quality impacts of smaller SO₂ sources that may potentially cause or contribute to a violation of the new SO₂ standard.*

EPA will provide an opportunity for public comment on the guidance before issuing it in final form.

Final SO₂ Monitoring Network Requirements

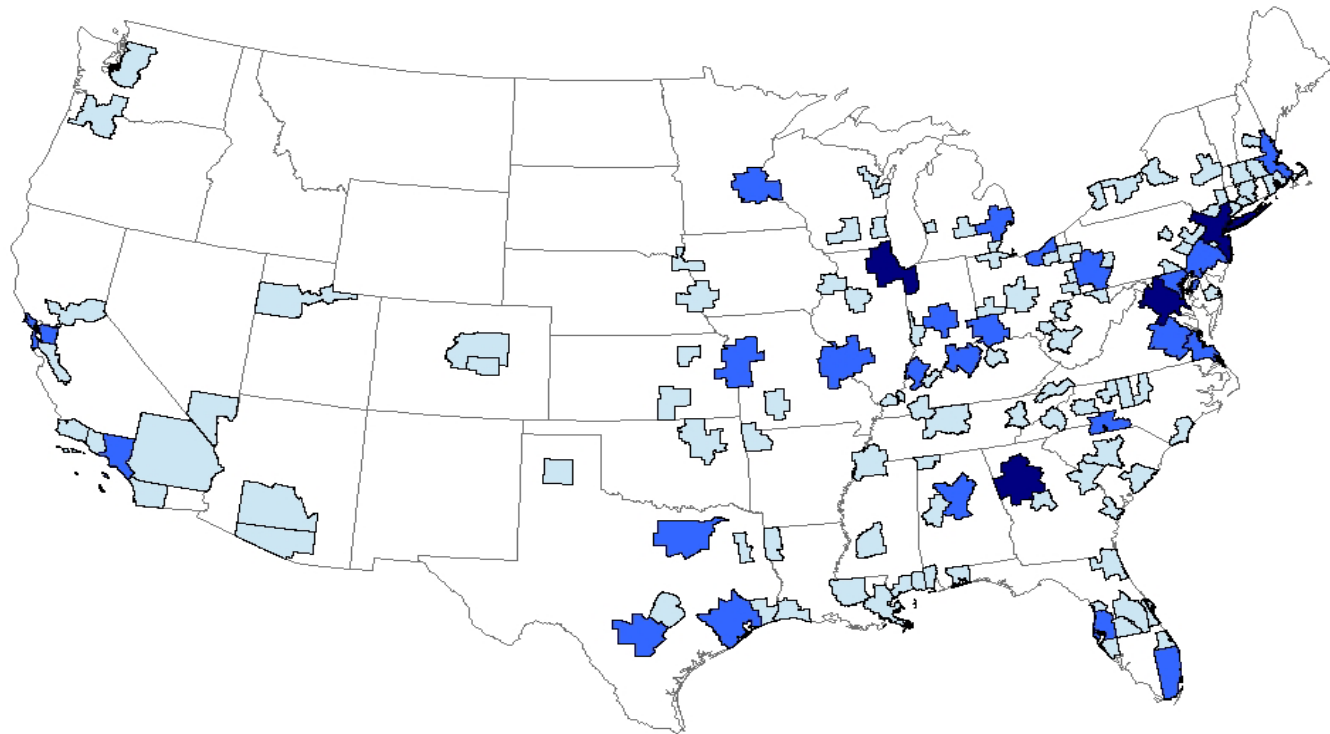
- EPA is setting specific minimum requirements for where states must place SO₂ monitors.
- At least 163 SO₂ monitoring sites nationwide are required by this rulemaking.
- The final monitoring regulations require monitors to be placed in Core Based Statistical Areas (CBSAs) based on a population weighted emissions index for the area . The final rule requires:
 - 3 monitors in CBSAs with index values of 1,000,000 or more;
 - 2 monitors in CBSAs with index values less than 1,000,000 but greater than 100,000; and
 - 1 monitor in CBSAs with index values greater than 5,000.
- All required SO₂ monitors must be operational by January 1, 2013.
- EPA Regional Administrators have the authority to require additional monitoring in certain circumstances.



Final SO₂ Data Reporting Requirements

- EPA also finalized changes to data reporting requirements. State and local agencies are required to report two data values for every hour of monitoring conducted:
 - The 1-hour average SO₂ concentration; and
 - The maximum 5-minute block average SO₂ concentration for each hour.

Monitoring Requirements for the Revised Primary 1-Hour Sulfur Dioxide (SO₂) Standard



103 CBSAs require 1 monitor
24 CBSAs require 2 monitors
4 CBSAs require 3 monitors

131 Total CBSAs require at least 1 monitor
(163 monitors total)

Got it?

- What does this mean for me..?



SO₂ Monitoring in Region 1 under this FRN.

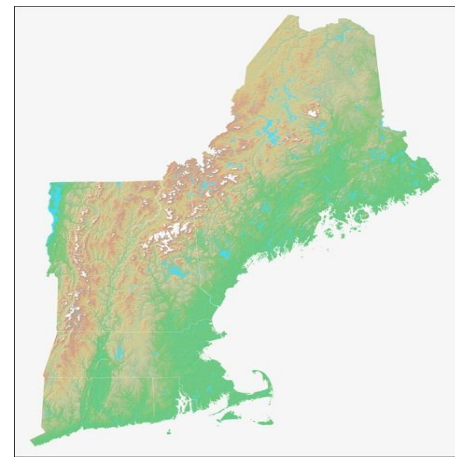
This final rule is different from the proposal in that "State Emissions Triggered" monitors are not required, and the "PWEI" -based SO₂ monitors have different PWEI "cut-offs."

By this FRN:

- 3 in CT (Hartford- East Hartford- West Hartford; Bridgeport-Stamford-Norwalk; New Haven-Milford)
- 1 in NH (Concord)
- 3 in MA (Barnstable; Springfield; Worcester)
- 2 in MA/ NH (multi-state Boston area) and
- 1 in MA/RI (multi-state Providence- Fall River)

- 10 total- in Region 1

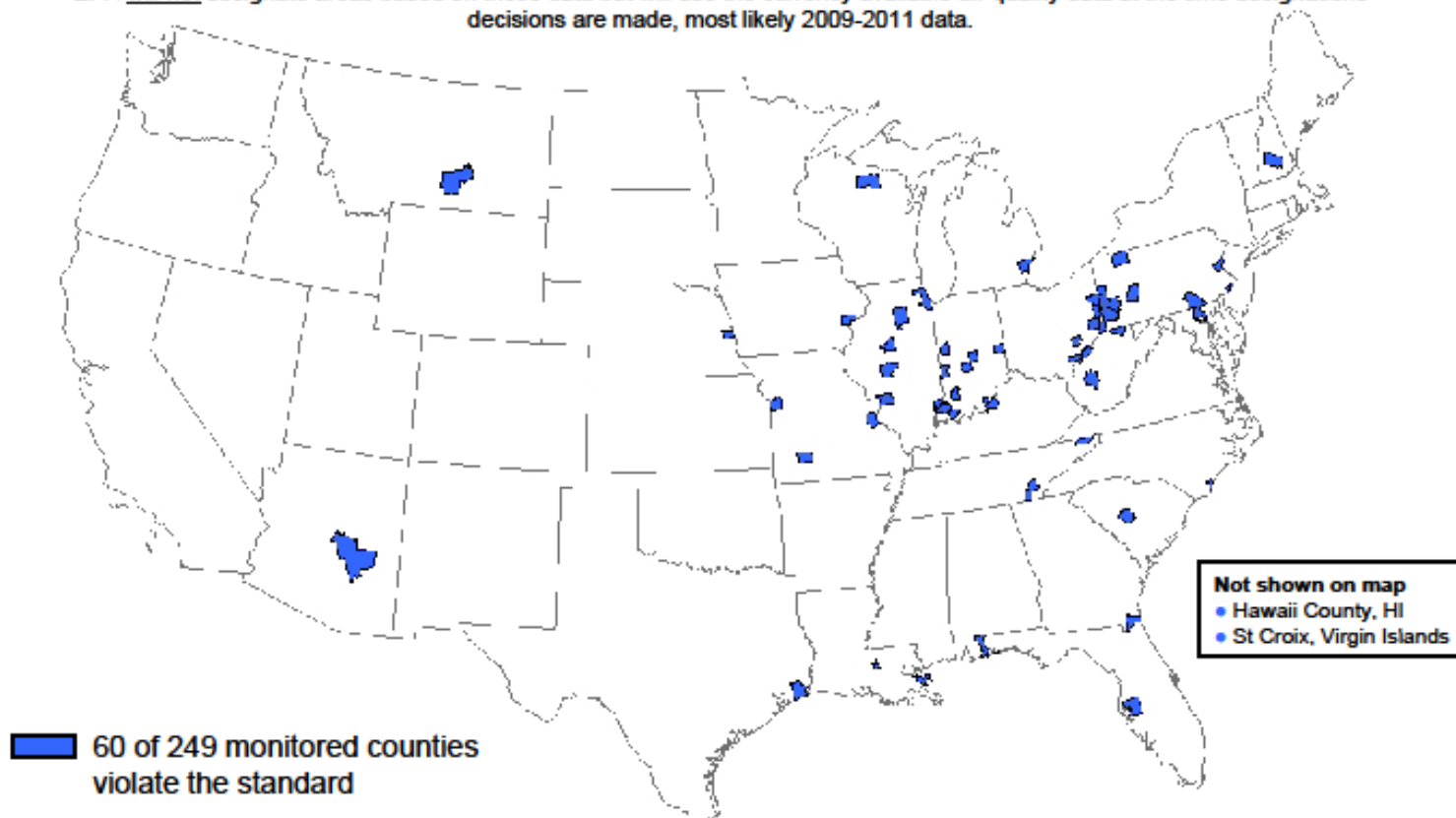
As Stated earlier, EPA Regional Administrators have the authority to require additional monitoring in certain circumstances to ensure NAAQS compliance.



Counties With Monitors Currently Violating the Revised Primary 1-Hour Sulfur Dioxide (SO₂) Standard of 75 ppb

(Based on 2007 – 2009 Air Quality Data)

EPA will not designate areas based on these data but will use the currently available air quality data at the time designations decisions are made, most likely 2009-2011 data.





Notes:

1. Data are shown for monitors that met the following criteria: 75% of the day has valid hourly values, 75% of the days in a quarter are valid, and all 4 quarters for each of the three years are valid as well as other applicable data handling conventions included in 40CFR50 Appendix T.

Timeline for Implementation

Deadline	Milestone
June 2010	EPA sets new primary SO ₂ standard
June 2011	States submit designation recommendations, based on available monitoring data and any modeling they choose to perform in advance of submitting their state implementation plans
June 2012	EPA issues initial designations: <ul style="list-style-type: none">➤ “nonattainment” = monitored <u>or</u> modeled violations➤ “attainment” = monitored <u>and</u> modeled evidence of no violations➤ “unclassifiable” = all other areas
January 2013	New monitoring network operational
June 2013	State plans for basic requirements to implement the revised standards (including appropriate state regulations to carry out monitoring etc.) due to EPA Attainment and unclassifiable area state implementation plans, modeling attainment of the new standard by August 2017, due to EPA.
February 2014	Nonattainment area plans due to EPA
August 2017	All areas attain the standard

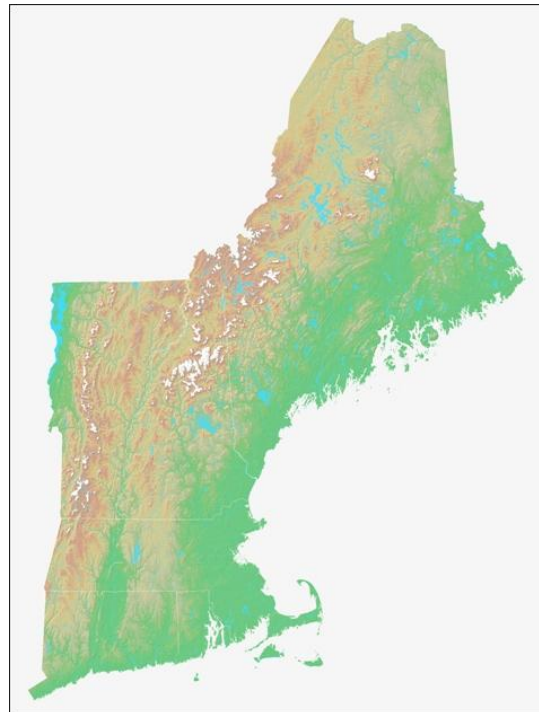
Ready for the next pollutant..?

- CO 
- SO₂ 
- Lead (Pb)
- Ozone
- NO₂
- NCore

“New” lead Monitoring FRN

On December 14, 2010, the Environmental Protection Agency (EPA) finalized the ambient monitoring requirements for measuring airborne lead.

(FRN published on Dec. 27, 2010 -75 FR 81126)



The New Monitoring Rule- Industrial Point Source threshold

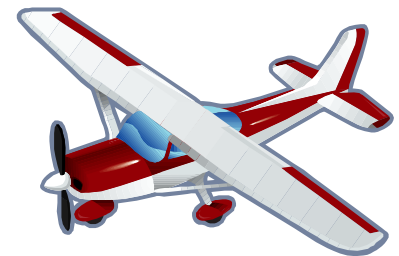
- EPA changed the lead emissions monitoring threshold to 0.50 tons per year (tpy) for industrial sources. Agencies would use this threshold to determine if an air quality monitor is required to be placed near an industrial facility emitting lead.
- EPA is requiring that these industrial source-oriented monitors would begin operating one year after this rule is published. Monitors around the largest sources (those that emit 1.0 tpy or greater) are already required to be operational no later than January 1, 2010.



The Monitoring Rule -

Airports

- Fuel used for piston-engine aircraft still contains lead. (Commercial aircraft do not use leaded fuel.)
- EPA is maintaining a 1.0 tpy lead emission threshold for airports.
- However, EPA is requiring a 1-year monitoring study of 15 additional airports (beyond those currently required to monitor at the existing 1.0 tpy emission threshold). The study will help EPA determine whether airports that emit less than 1.0 tpy have the potential to cause the surrounding areas to exceed the lead NAAQS of 0.15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The monitors participating in the study must be operational no later than one year after this rule is published in the Federal Register.



That was easy....?

- What does this mean for me..?



Airports to be Monitored for Lead under this Study

- Merrill Field, Anchorage, AK
- Pryor Field Regional, Limestone, AL
- Palo Alto Airport of Santa Clara County, Santa Clara CA
- McClellan-Palomar, San Diego, CA
- Reid-Hillview, Santa Clara, CA
- Gillespie Field, San Diego, CA
- San Carlos, San Mateo, CA
- **Nantucket Memorial, Nantucket, MA**
- Oakland County International, Oakland, MI
- Republic, Suffolk, NY
- Brookhaven, Suffolk, NY
- Stinson Municipal, Bexar, TX
- Northwest Regional, Denton, TX
- Harvey Field, Snohomish, WA
- Auburn Municipal, King, WA



The New Monitoring Rule- Nonpoint source monitoring

EPA is also requiring lead monitoring in large urban areas (Core Based Statistical Areas, or CBSAs, with a population of 500,000 people or more). Monitors will be located along with multi-pollutant ambient monitoring sites (known as the “NCore network”). Lead monitoring at these sites will begin January 1, 2012.

- The NCore network will consist of approximately 80 monitoring sites, of which 63 will be in large urban areas. The requirement to add these monitors replaces an existing requirement to place lead monitors in each CBSA with a population of 500,000 or more



Impacts on EPA –New England for lead monitoring

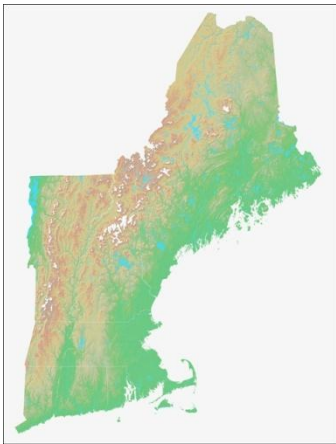
- VT- VT would have no monitoring requirement. (Underhill NCore site is considered rural.)
- NH- Would require a monitor at Londonderry NCore site, part of larger CBSA. (Pack Monadnock NCore site is considered rural.)
- ME- ME would have no monitoring obligation since Acadia NCore site considered rural.
- RI- Lead would be measured at East Prov NCore site.
- CT- Would maintain New Haven NCore as lead site. (Mohawk Mountain NCore site considered rural.)
- MA- Would monitor at NCore Roxbury site. Would need to monitor near Nantucket Airport as part of a special study.

Lead monitoring- “monitor options”

- EPA is requiring lead to be monitored as lead in total suspended particles (TSP), such as industrial facilities or airports.
- The Agency will allow the use of lead-PM₁₀ monitors instead of lead-TSP monitors under certain limited circumstances: where lead is not expected to occur as large (ultra-coarse) particles; and where three-month average lead concentrations are not expected to be greater than or equal to 0.10 µg/m³, such as NCore sites.
(Low volume PM₁₀ samplers only- not high volume samplers)
If a lead-PM₁₀ monitor measures three-month average levels greater than or equal to 0.10 µg/m³, then that monitoring agency must install and operate a lead-TSP monitor within six months.
- Lead- PM₁₀ measurements greater than the NAAQS are considered to be in violation of the standards.

Schedule

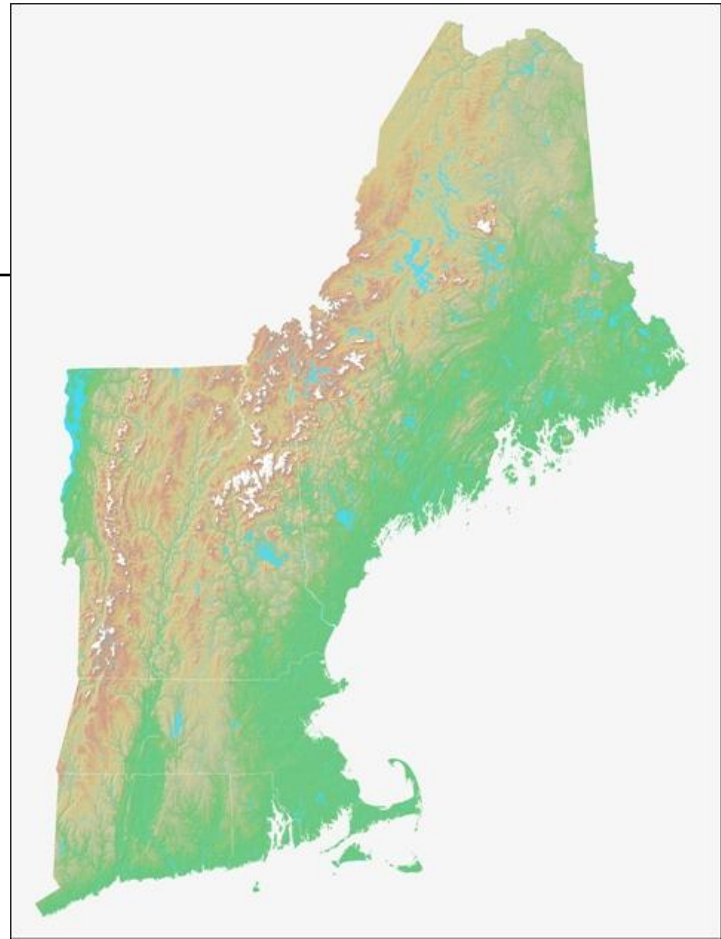
- Lead monitoring plan should be in Annual Network Plan due on July 1, 2011.
- Lead sites should be operational one year from date of the FRN publication in the Federal Register.






Questions..?

For more information:

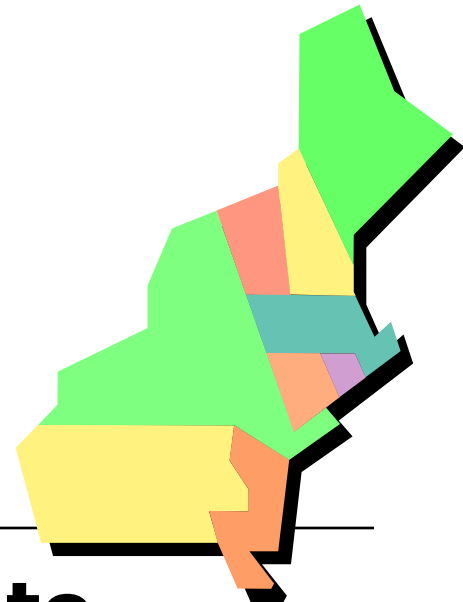
<http://www.epa.gov/air/lead/actions.html>



Ready for the next pollutant..?

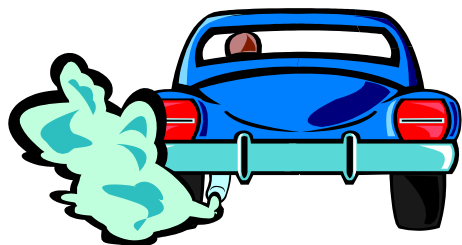
- CO 
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- NO₂
- NCore

*United States Environmental Protection
Agency*



January 6, 2010 Proposal to Revise the National Ambient Air Quality Standards for Ground-level Ozone (O_3)...

and its effect on Ozone Monitoring Requirements





What could this mean for monitoring?

○ Monitoring requirements

(EPA is not proposing anything beyond the July 16, 2009 NPR (74 FR 34525) regarding the ozone the monitoring network requirements. However, these strengthened standards effect where monitoring is required.)

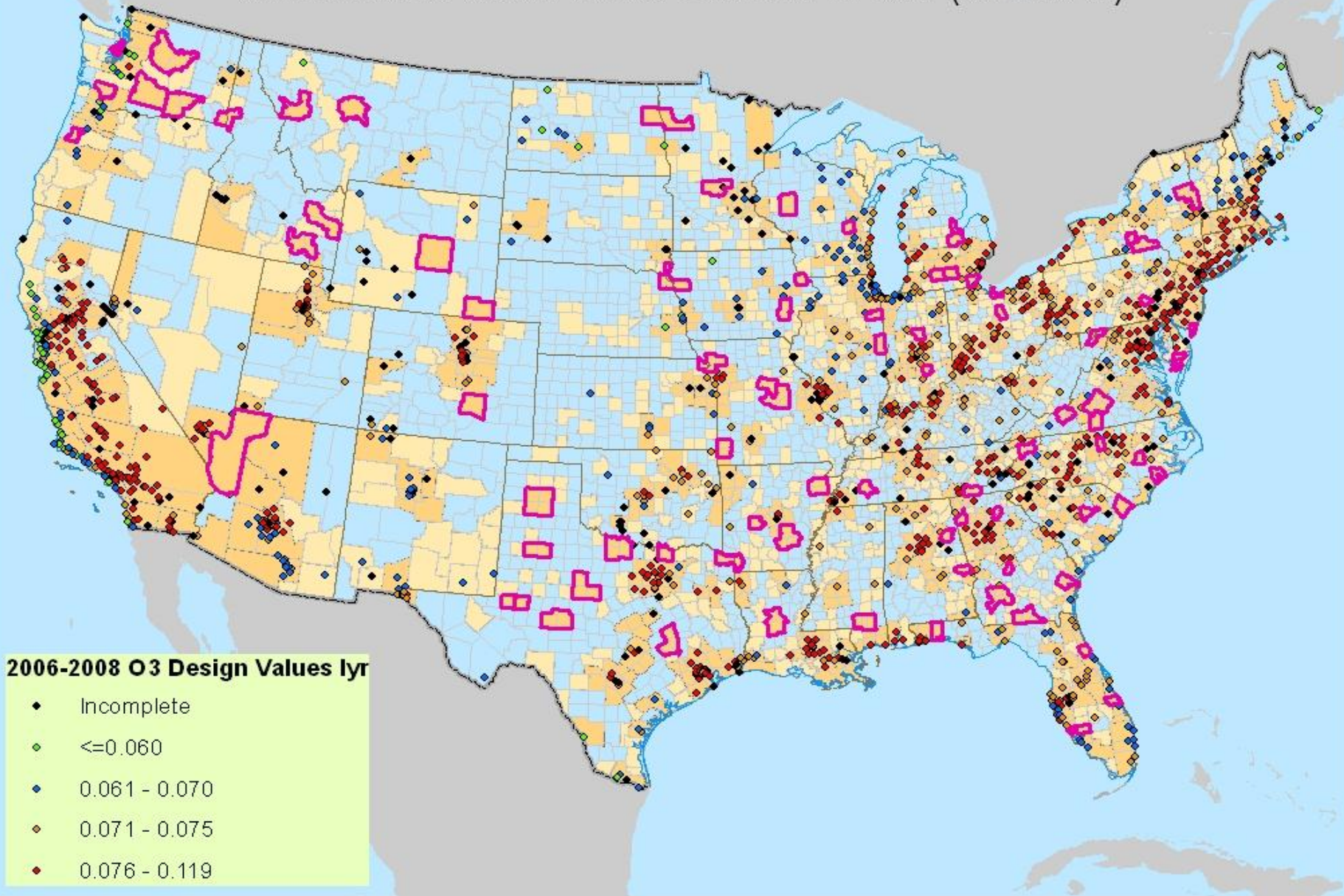
- Urban network requirements
- Non-urban network requirements
- Required O₃ monitoring season



Proposed Urban Requirements

- One ozone monitor required in MSA's between 50,000 and 350,000 population if no monitor already exists and there is no history (within that MSA) of O₃ monitoring within the previous 5 years indicating a design value of less than 85 percent of the NAAQS
 - All Region 1 MSA's between 50,000 and 350,000 population appear to be in compliance with this requirement. **States should review their network to determine if they will be effected.**
 - Monitor could be removed after demonstrating design value less than 85 percent of NAAQS (needs at least 3 years of data)
 - Because monitoring requirements are based on population and concentration, states should be aware that this new NAAQS proposal may affect MSAs in the population range of population 350,000 or greater if their design values are now greater than 85% where previously they were less than 85%.

Ozone Design Values by Monitor - 2006 to 2008 Data
Unmonitored Urban Areas Outlined in Red (83 MSAs)



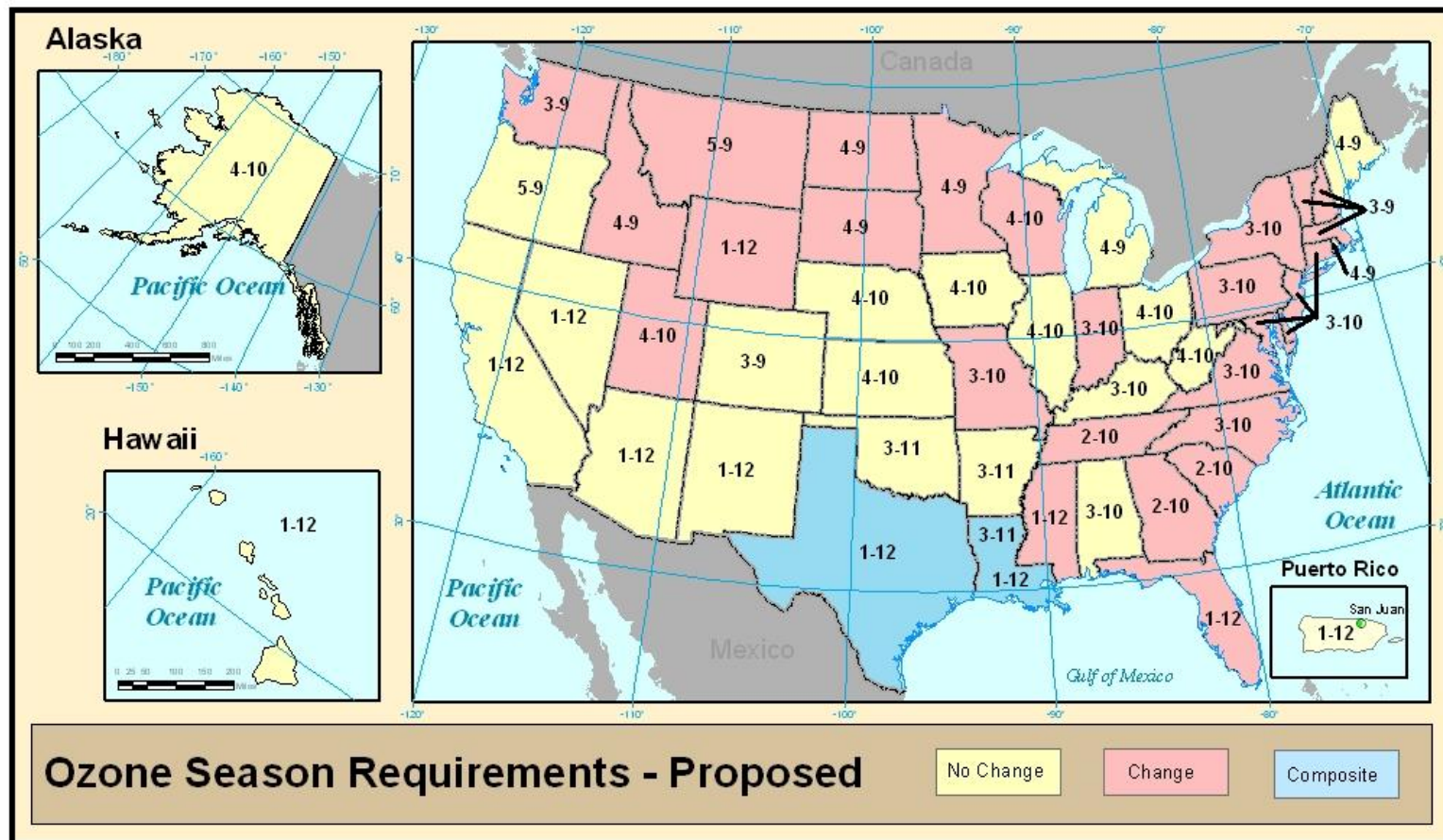
Monitoring in Non-Urban Areas – Proposed Requirements

- Minimum of three required monitors per State to meet the following objectives
 - Provide better characterization of O₃ exposures to O₃-sensitive vegetation and ecosystems in wilderness areas, National Parks, and remote areas to ensure that potential secondary NAAQS violations are measured....
- States can do the following to meet proposed new requirements
 - Establish new monitors
 - Propose that appropriately sited existing non-urban monitors meet requirements
 - Relocate existing monitors (that are in excess of minimum requirements) according to 40 CFR part 58 requirements (with R.A. approval)
 - Propose that CASTNET or NPS monitors be utilized to meet State requirements (with R.A. approval and documentation of compliance with applicable monitoring regulations)
 - Request that R.A. grant deviation from requirements in certain cases, e.g.
 - One monitor meeting multiple objectives
 - A remote or isolated area without significant local pollution sources or likelihood of being impacted by transport of O₃ precursors from another area
 - Lack of non-urban location(s) in a small area subject to requirements (e.g., District of Columbia, **Rhode Island**)

Current Ozone Monitoring Seasons...



EPA is Proposing New Ozone Monitoring Seasons...



Huh..?

- What does this mean for me..?



Proposed Ozone Monitoring season in Region 1

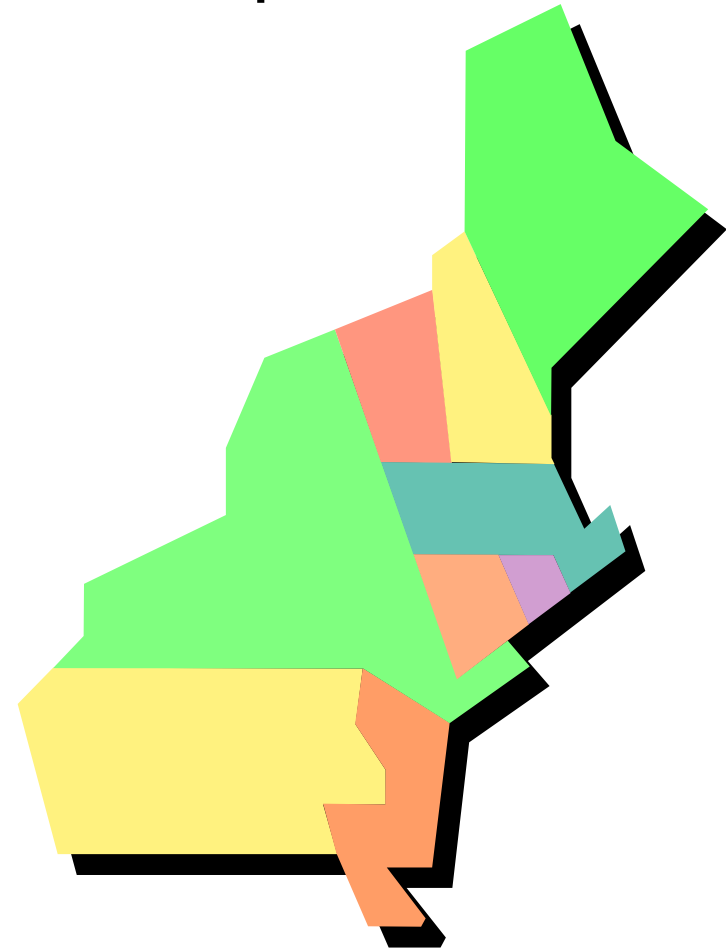
- **Connecticut (March 1- October 31)**
- **Maine (April 1- Sept. 30) (*unchanged*)**
- **Massachusetts (March 1- Sept. 30)**
- **New Hampshire (March 1- Sept. 30)**
- **Rhode Island (April 1- Sept. 30) (*unchanged*)**
- **Vermont (March 1- Sept. 30)**

- NCore stations proposed to be January – December regardless of location
- Possible Deadline – potential revised season requirements to be effective on first day of ozone monitoring season in **2012** for existing stations





- **New monitors to meet urban and non-urban requirements?**

Questions about Ozone Monitoring?

- <http://www.epa.gov/ozonepollution>

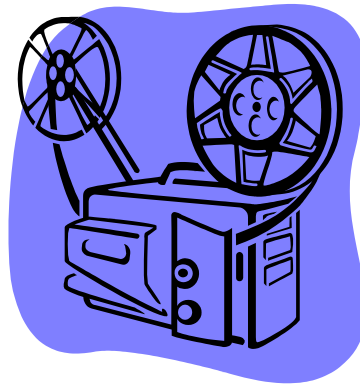


Ready for the next pollutant..?

- CO 
- SO₂ 
- Lead (Pb) 
- Ozone 
- NO₂
- NCore

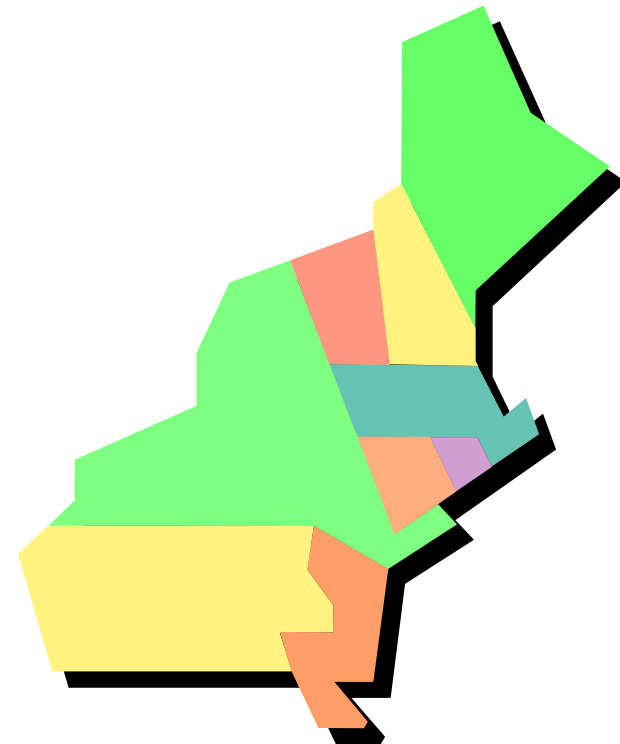
Almost done...

- Ready for a break?



Monitoring in New England under the Revised Primary National Ambient Air Quality Standard for Nitrogen Dioxide (NO₂)

January 22, 2010





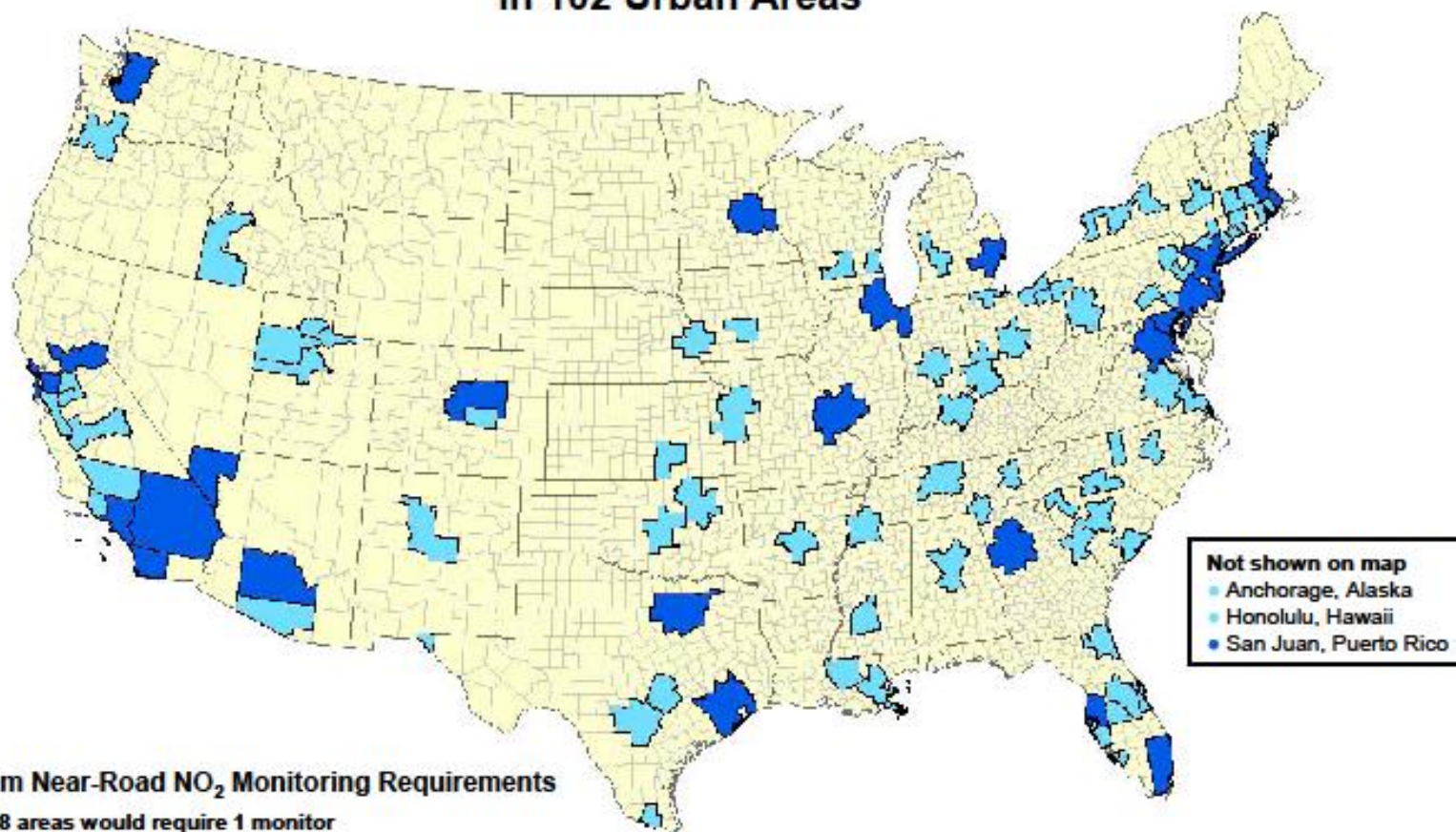
Overview of the Final Rule

- On January 22, 2010 EPA strengthened the primary national ambient air quality standard (NAAQS) for nitrogen dioxide (NO₂) to increase protection of public health by:
 - adding a **1-hour** NO₂ standard at 100 parts per billion (ppb); and
 - retaining the **annual** average NO₂ standard at a level of 53 ppb
- To determine compliance with the revised NO₂ standard, EPA also is making changes to the NO₂ air quality monitoring network requirements.
 - Monitoring is needed to measure:
 - Peak, short-term concentrations – primarily near major roads in urban areas
 - Highest concentrations of NO₂ that occur over wider community areas, and
 - Concentrations impacting vulnerable and susceptible individuals

Updating the Monitoring Network

- The monitoring networks for NAAQS pollutants **focus on monitoring in locations of maximum concentration**
- EPA is requiring changes to the monitoring network that will capture short-term NO₂ concentrations such as those that occur near roads, in community-wide areas, and in low income or minority at-risk communities
 - **Near Road**
 - At least one monitor would be located near a major road in any urban area with a population greater than or equal to 500,000 people
 - The probes for near road monitors should be within 50 meters of the outside nearest edge of the traffic lane of the target road, and between 2 and 7 meters above the ground
 - **Community-Wide**
 - A minimum of one monitor would be placed in any urban area with a population greater than or equal to 1 million people
 - A second monitor would be required near a major road in areas with either:
 - population greater than or equal to 2.5 million people, or
 - one or more road segments with an annual average daily traffic count greater than or equal to 250,000 vehicles
 - **Susceptible and Vulnerable Communities**
 - Working with the states, EPA Regional Administrators will site at least 40 additional NO₂ monitors nationwide to help protect communities that are susceptible and vulnerable to NO₂ -related health effects

EPA Plans to Monitor NO₂ Concentrations Near Roads in 102 Urban Areas



Minimum Near-Road NO₂ Monitoring Requirements

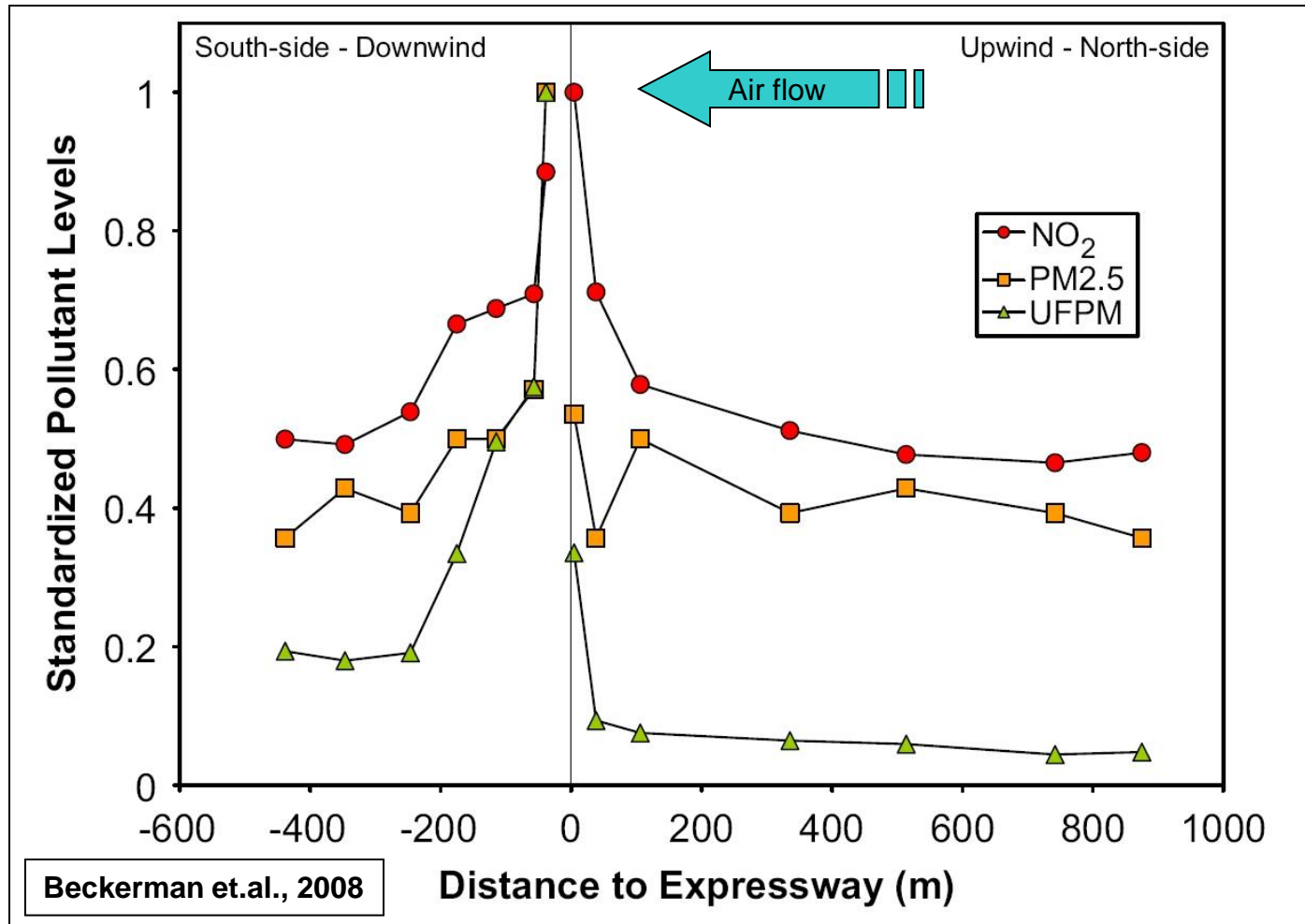
- ◆ 78 areas would require 1 monitor
(≥ 500,000 population)
- ◆ 24 areas would require 2 monitors
(≥ 2.5 million population or road segments with annual average daily traffic counts ≥ 250,000 vehicles)

126 total monitors

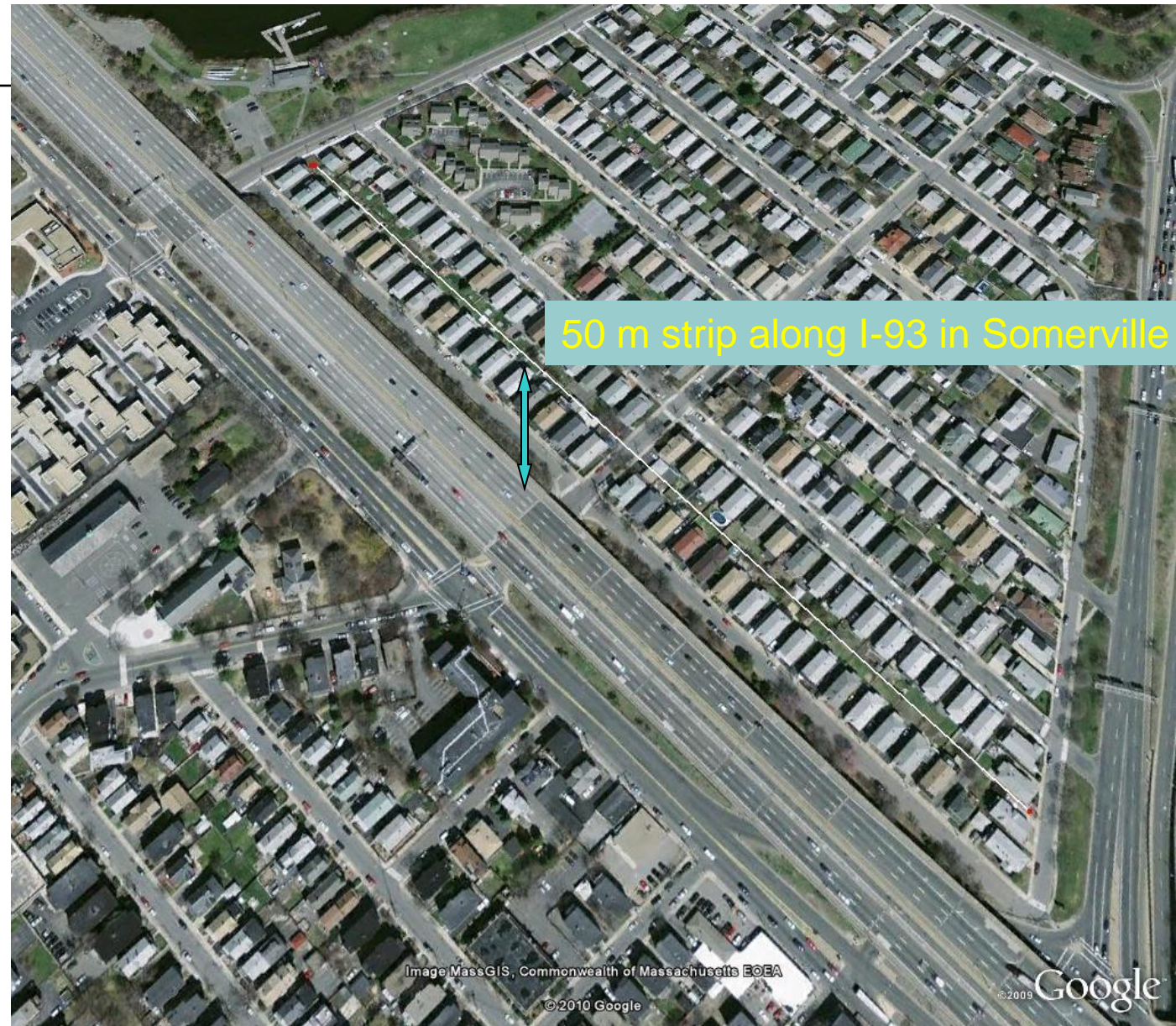
Approximately 40 additional monitors will be placed in locations to help protect communities that are susceptible and vulnerable to NO₂-related health effects

Why worry about near-road exposure?

Tens of millions of people live near major roads – their exposure is higher than areas away from roads
Multiple articles have reviewed NO_2 behavior in the near road, suggesting general ranges of influence



So who lives near a highway?

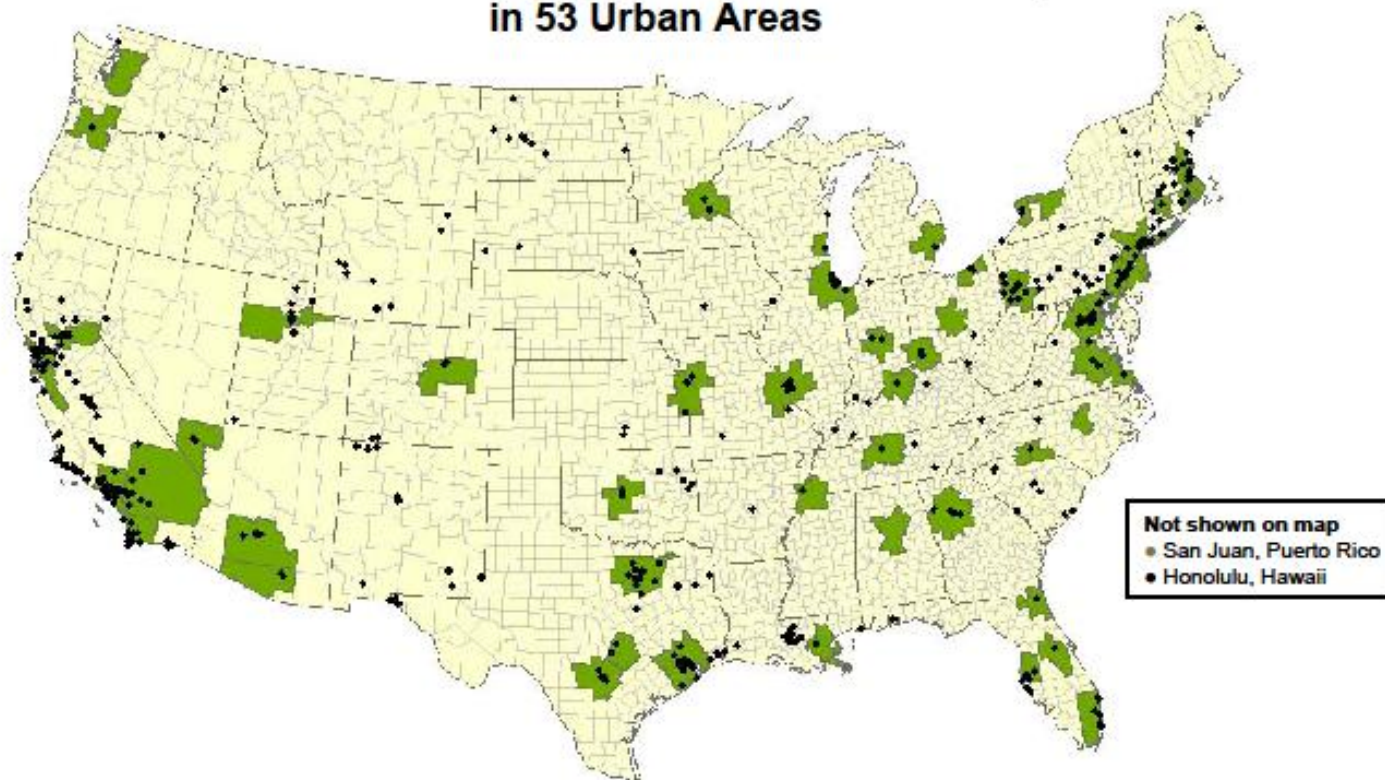


So who lives near a highway?

50 m strip along I-195 in Providence



EPA to Monitor NO₂ Concentrations Community-Wide in 53 Urban Areas



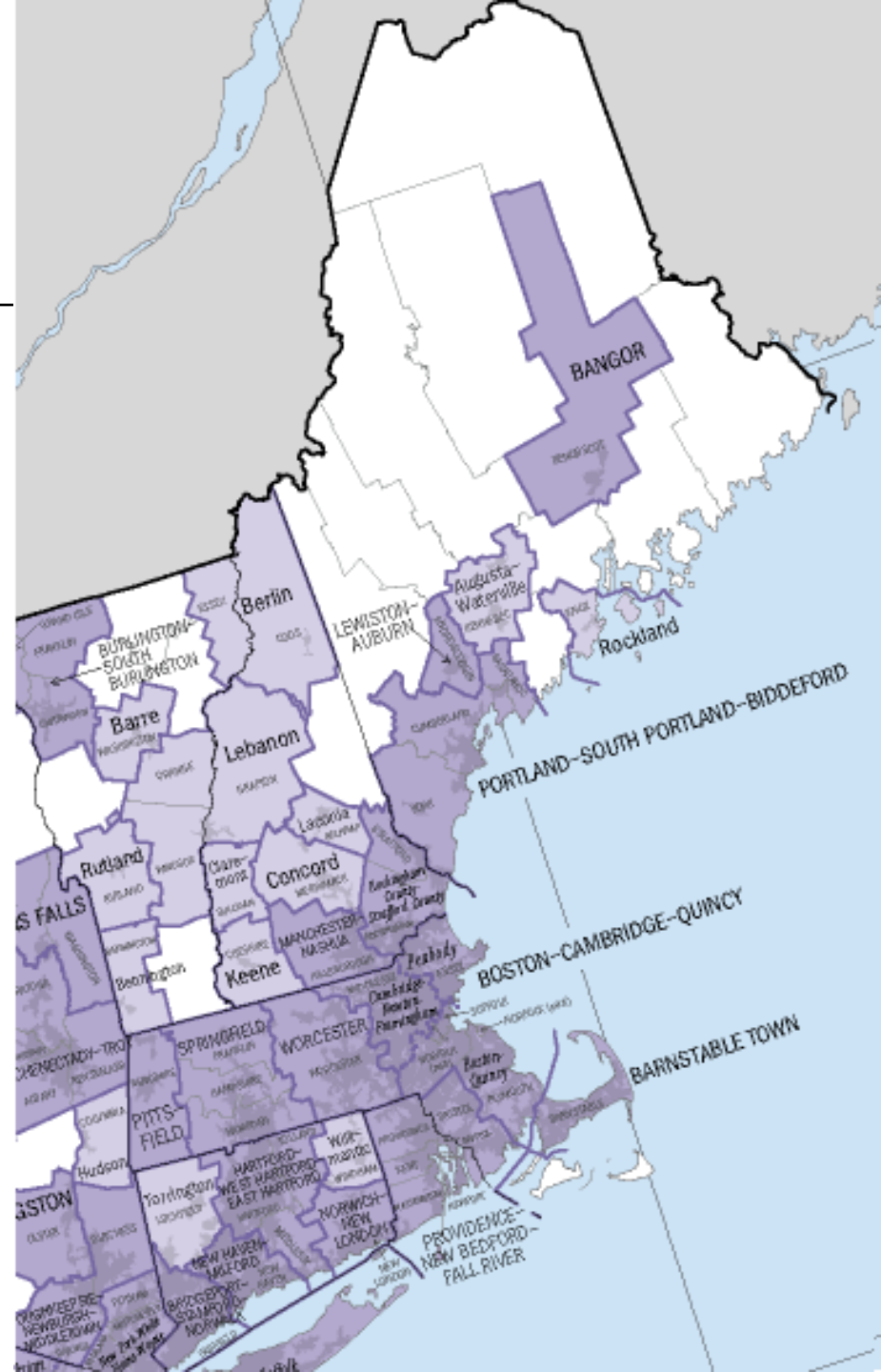
Minimum Community-wide NO₂ Monitoring Requirements

- ◆ 53 areas would require 1 monitor
(≥ 1 million population)
- 418 existing NO₂ monitoring sites in 2008
Many of these sites would satisfy the proposed community-wide monitoring requirements.

What does this mean for me..?



CBSAs in New England



Monitoring requirements in New England

<i>CBSA greater than 500,000</i>	<i>Near Road Monitor(s) Required?</i>	<i>Urban Community Wide Monitoring Required?</i>
<i>Bridgeport, CT</i>	<i>Yes</i>	<i>Not required</i>
<i>Hartford, CT</i>	<i>Yes</i>	<i>Yes</i>
<i>New Haven, CT</i>	<i>Yes</i>	<i>Not required</i>
<i>Boston, MA/NH</i>	<i>Yes (2)</i>	<i>Yes</i>
<i>Worcester, MA</i>	<i>Yes</i>	<i>Not required</i>
<i>Springfield, MA</i>	<i>Yes</i>	<i>Not required</i>
<i>Portland, ME</i>	<i>Yes</i>	<i>Not required</i>
<i>Providence, RI/MA</i>	<i>Yes</i>	<i>Yes</i>

*Additional monitors in low income or minority at-risk communities...

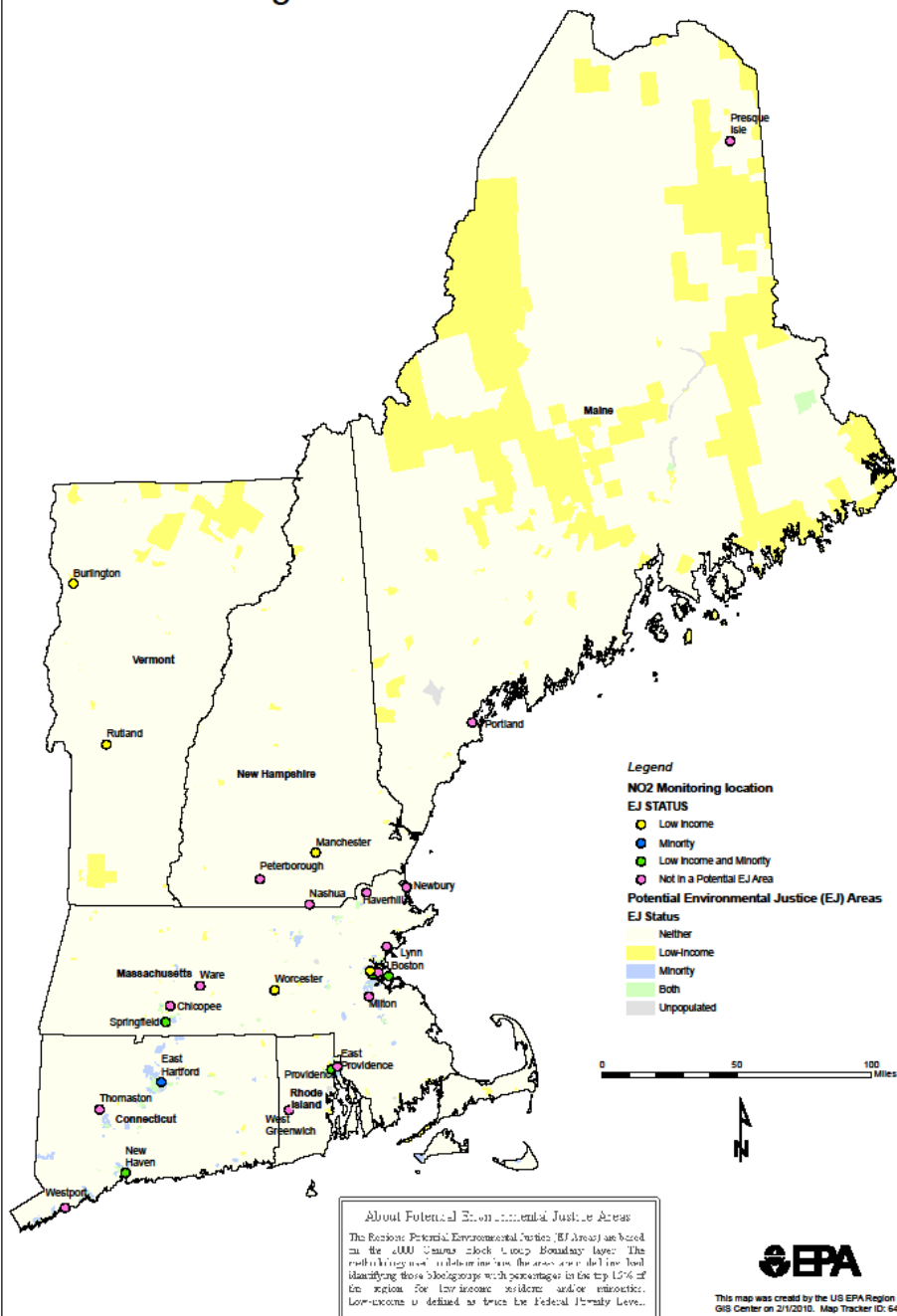


Effects on New England States

- The current Region 1 NO₂ network includes at least one monitor in each of the CBSAs listed above. These monitors may meet the community wide monitoring requirement for those areas.
- In order to meet the near roadway NO₂ monitoring obligations, additional monitors will need to be located. At present, the NO₂ monitoring network is not designed to meet those requirements.
- Additional monitors may be required by the Regional Administrator, including *low income* or *minority at-risk* communities (“susceptible and vulnerable”).

Current NO₂ Monitor and EJ Areas






NO₂ Monitoring Stations New England



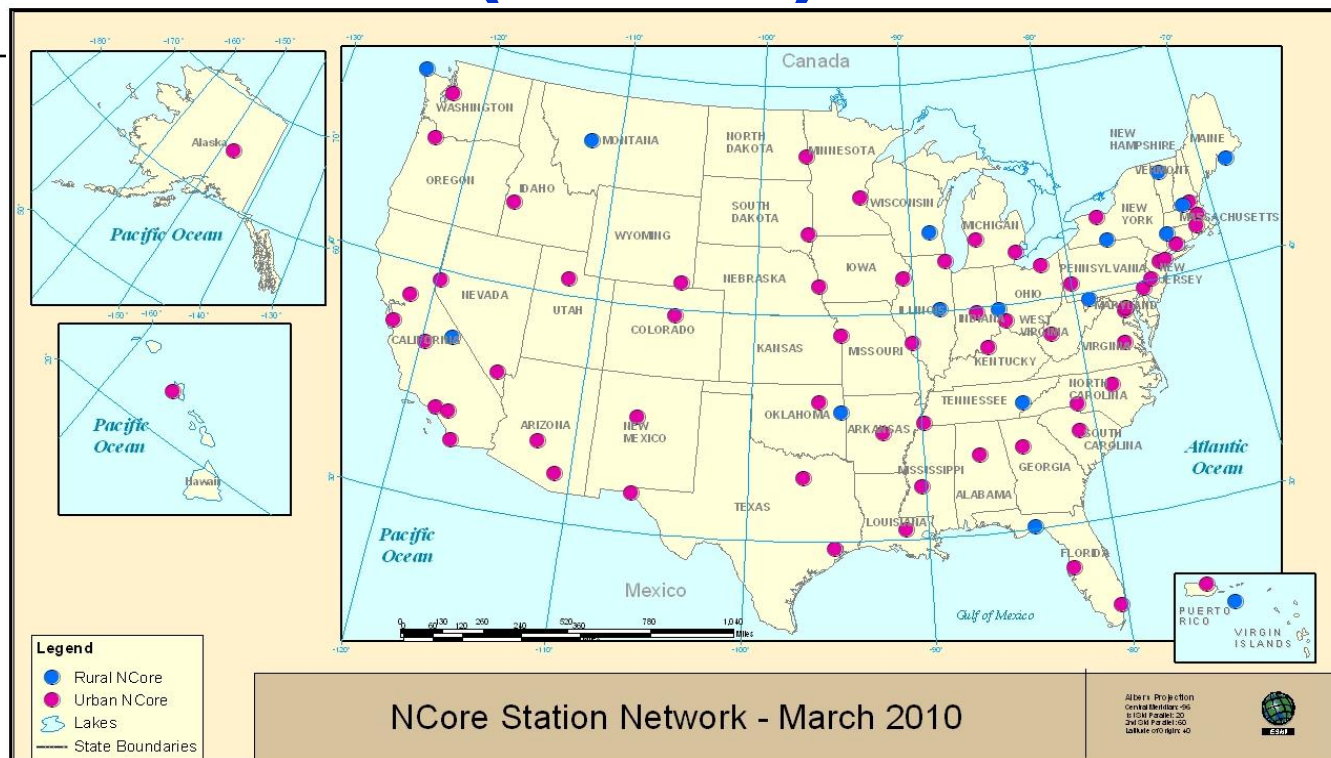
Implementation Schedule

Milestone	Date
State Designation Recommendations to EPA	January 2011: One year following promulgation (Based on existing network data)
Designations	January 2012: EPA designates all/most areas as “unclassifiable” (because near road monitors not in place)
New NO₂ Monitoring Network	January 1, 2013: All monitors operating
Next NO₂ NAAQS Review Completed	January 2015: Anticipated time frame
Nonattainment Re-Designations (discretionary)	January 2016/2017 (depending on date that sites become operational)
Attainment Date	January 2021/2022 (5 years after date of nonattainment designations)

Almost there...

- CO 
- SO₂ 
- Lead (Pb) 
- Ozone 
- NO₂ 
- NCore

National Core (NCore) Network



Implementation

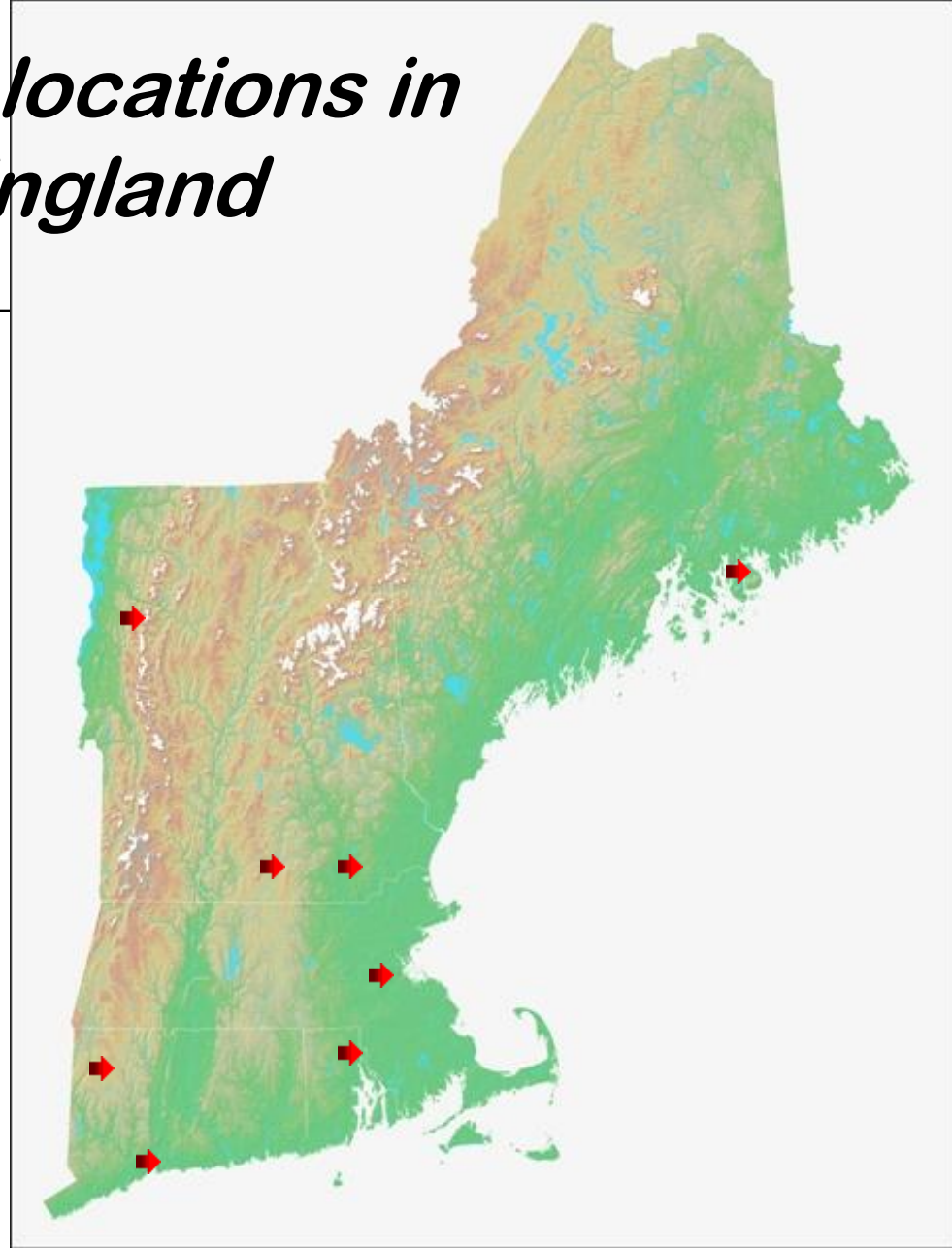
- Most monitoring stations are operational for several measurements, others coming on-line this year.
- Plans received last year with almost all approvals completed.
- Stations to be fully operational by - **January 1, 2011**

Network Size - 80 proposed stations

- urban (about 63 sites)
- rural (about 17 sites)
- May achieve additional rural coverage with National Parks and CASTNET

Approved NCore locations in EPA- New England

- ***Eight NCore site locations throughout New England***
- ***From urban to rural***



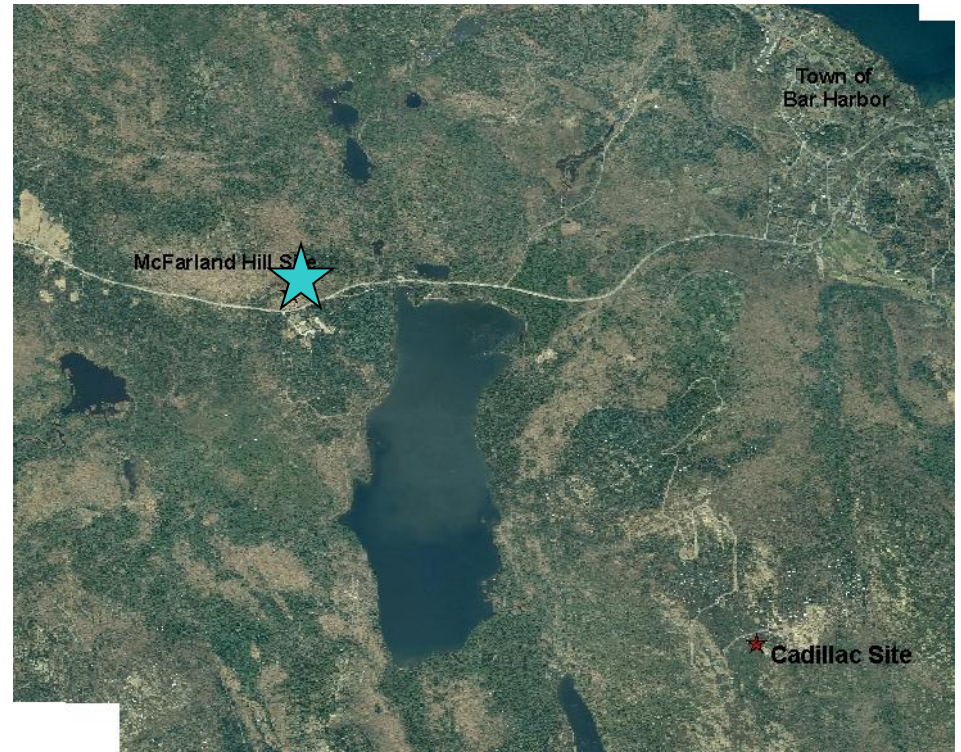
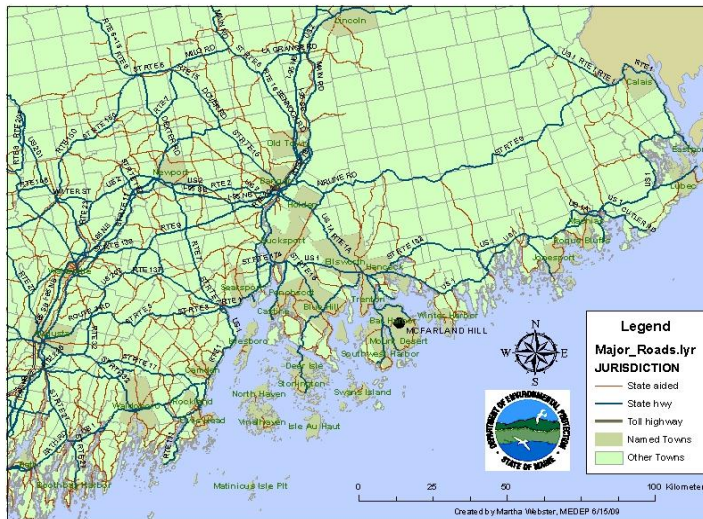
McFarland Hill, Acadia National Park, Maine

- A rural site





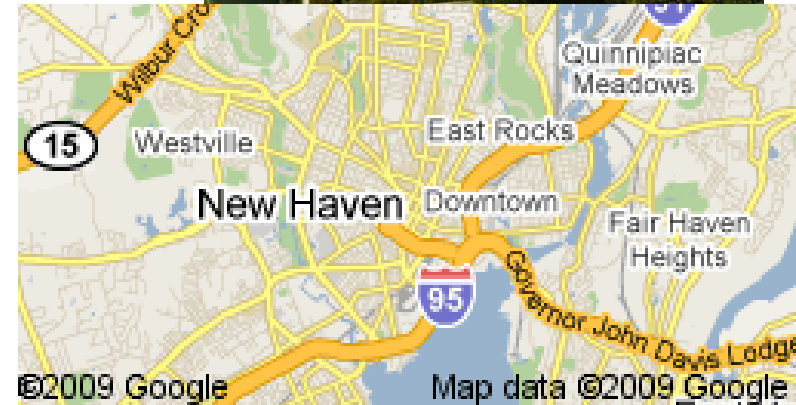
Existing monitoring location in Maine – leverage= success

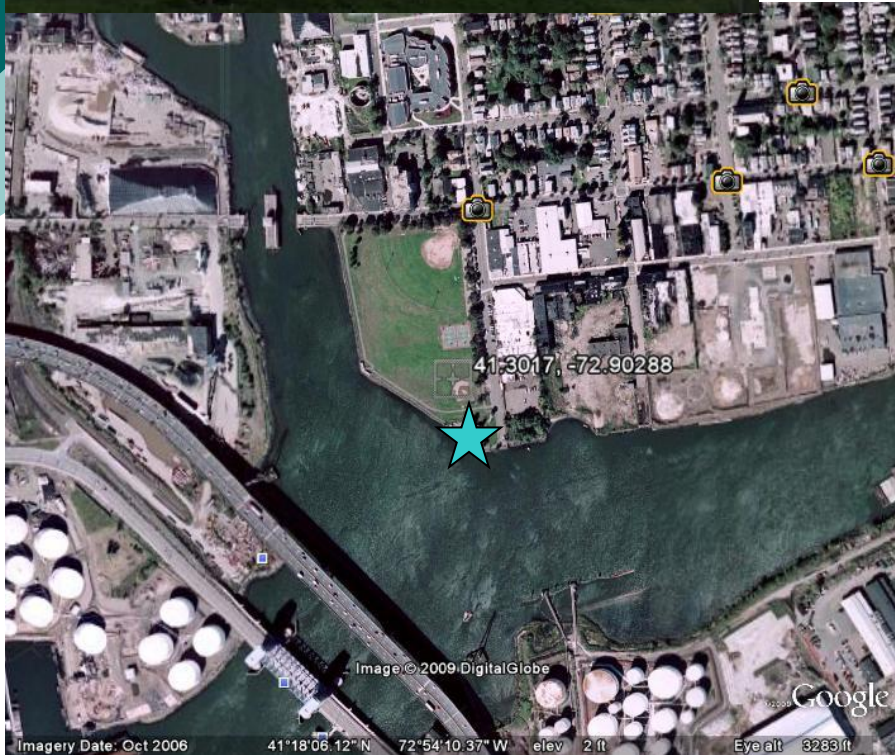




Criscuolo Park, New Haven, CT

- An urban site











NCore

- Timely reporting of data to public by supporting AIRNow, air quality forecasting, and other public reporting mechanisms;
- Support for development of emission strategies through air quality model evaluation and other observational methods;
- ~~Accountability of emission strategy progress through tracking long-term trends of criteria and non-criteria pollutants and their precursors;~~
- Support for long-term health assessments that contribute to ongoing reviews of the NAAQS;
- Compliance through establishing nonattainment/attainment areas through comparison with the NAAQS;
- Support to scientific studies ranging across technological, health, and atmospheric process disciplines; and
- Support to ecosystem assessments recognizing that national air quality networks benefit ecosystem assessments and, in turn, benefit from data specifically designed to address ecosystem analyses.

Measurements:

- **PM2.5 speciation** -Organic and elemental carbon, major ions and trace metals (24 hour average; every 3rd day)
- **PM2.5 FRM mass** -typically 24 hr. average every 3rd day
- **continuous PM2.5 mass** - 1-hour reporting interval for all cont. species
- **continuous PM(10-2.5) mass** -in anticipation of PM(10-2.5) standard
- **ozone (O3)**
- **carbon monoxide (CO)** -capable of trace levels (low ppm and below)
- **sulfur dioxide (SO2)**- capable of trace levels (low ppb and below)
- **nitrogen oxide (NO)** -capable of trace levels (low ppb and below)
- **total reactive active nitrogen (NOy)** -capable of trace levels (low ppb and below)
- **ammonia (NH3)** -currently under consideration
- **nitric acid (HNO3)** -currently under consideration
- **surface meteorology** -wind speed and direction, temperature, RH

Phew...

- CO 
- SO₂ 
- Lead (Pb) 
- Ozone 
- NO₂ 
- NCore 

NAAQS Review Status

Pollutant	Current NAAQS Level	Latest NAAQS Review Activity	Expected Next Step
Ozone	0.075 ppm 8-hour	Reconsideration of level and secondary NAAQS proposed on January 6, 2010	Final standards expected to be published August 2011
CO	9 ppm 8-hour 35 ppm 1-hour	NPR signed on January 28, 2011. NAAQS not proposed to be changed, but new near road monitoring requirements.	Court ordered deadline of August 12, 2011 for final rule
SO ₂	75 ppb 1-hour (Annual and daily standards revoked)	FRN signed on June 2, 2010 with 1-hour NAAQS. Hybrid monitoring/modeling approach.	Complete
NO ₂	53 ppb annual mean New- 100 ppb 1-hour	FRN on January 22, 2010 with 1-hour NAAQS. Includes provisions for near roadway monitoring.	Complete
PM _{2.5}	15ug/m ³ annual average 35 ug/m ³ daily	Policy Assessment for the Review of the PM NAAQS - Second External Review Draft dated June 2010	Proposal expected August 2011
PM ₁₀	150 ug/m ³ daily		
Pb	0.15 ug/m ³ rolling 3-month average	Final monitoring rule signed on December 14, 2010. Monitoring requirements for all 0.5 TPY Pb sources, select airports, and urban NCore sites.	Complete

Questions?

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